

What is claimed is:

1. A method for encoding information, for transmission of the encoded information to a device that can display the encoded information as visible alphanumeric characters,
5 comprising the steps of:

converting an n-digit information into a binary format;
separating the binary format into x bit binary words, where x is the same as a
maximum number of bits data required by every data character in a pre-determined
10 data character map;
converting the x bit binary words into a sequence of characters using the data
character map;
inserting special marker characters into the sequence that demarcate the sequence into
sets of characters separated by one or more special marker characters;
15 inserting one or more special marker characters at the beginning and end of the
sequence; and
inserting line feed command characters into the sequence prior to transmission.

2. The method of claim 1, wherein,
20 x is four or five.

3. The method of claim 1, wherein:
25 the data character map excludes one or more alphanumeric characters because of the
potential for confusion at a visual level with another character.

4. The method of claim 1, wherein:
30 the special marker character is the symbol =.

5. The method of claim 1, wherein:

the line feed command characters divide the sequence into portions that are visually displayable when received by a user's device, as two or more lines of equal length.

6. The method of claim 5, wherein:

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each line initiates and terminates with one or more special marker characters.

7. The method of claim 5, wherein:

10 each line is subdivided by one or more special marker characters.

8. A scanner for reading a visible code and capturing data from a captured image, comprising:

15 an image capture device;

an OCR engine that has an image from the image capture device as an input and has as an output, a guess of characters and a location for each character from a geometric display of characters;

20 software for recognising a rectangular target area from the presence of special marker characters in the output;

a module for subdividing the target area into sets of a pre-determined size and location to create an expected character location values;

software for combining the guess of a characters and character location from the OCR engine with the expected character location values to arrive at best guess;

25 software for converting the best guess into a binary; and

one or more modules for applying data correction or recovery techniques to the binary for the purpose of arriving at the data.

9. The scanner of claim, 8 further comprising:

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a diffuse lighting source that minimises highlights in the captured image.

10. The scanner of claim, 8 further comprising:

software for de-skewing the captured image.

11. The scanner of claim, 8 further comprising:

5 a printer for providing a printed version of the data.

12. The scanner of claim, 8 further comprising:

an auxiliary display on which the data can be displayed.

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13. The scanner of claim, 12 wherein: -----

the auxiliary display can be physically separated from but functionally connected to the scanner.

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14. A method for decoding visible characters into original information data, comprising the steps of:

capturing an image of a user's display;

20 using an OCR engine on the image, the engine having as an output, a guess of characters and a location for each character;

recognising a target area from the presence of special marker characters in the output;

deriving a character string from characters within the target area;

converting the character string into a binary; and

25 applying data correction or recovery techniques to the best guess for the purpose of arriving at the data.

15. The method of claim 14, further comprising the steps of:

30 subdividing the target area into sets of a pre-determined size and location to create pre-determined character location values;

combining the guess of a characters and character location from the OCR engine with the pre-determined character location values to arrive at best guess of a character string.

16. The method of claim 14, wherein:

the character string is an alphanumeric character string.

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17. The method of claim 14, wherein:

deriving the character string further comprises comparing the guess of a characters
and character location from the OCR engine with a map of expected character
10 location values to arrive at best guess.

18. The method of claim 14, further comprising the step of:

mapping the decoded original information data to produce a data having a size that is
15 larger than the decoded original information data.

19. The method of claim 14, further comprising the step of:

not decoding characters that are part of a transmission but that are outside of the target
20 area.

20. The method of claim 14, wherein:

the target area is pre-defined as rectangular, being comprised of two or more equal
25 lines of characters and being bounded by special marker characters.